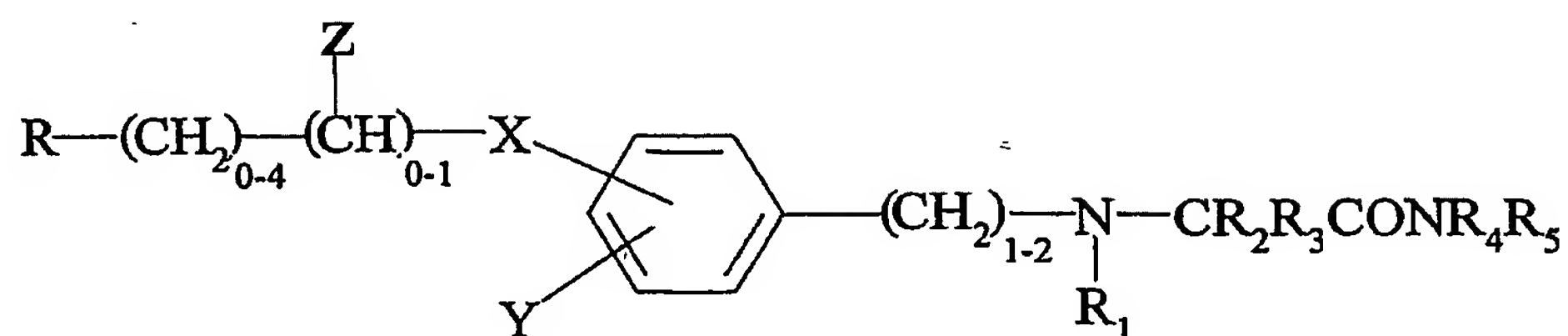


CLAIMS

1. The use of at least one therapeutic agent which is an alpha-aminoamide compound of formula (I),



(I)

wherein:

- R is a furyl, thienyl, or pyridyl ring or a phenyl ring, optionally substituted by one or two substituents independently selected from halogen, hydroxy, cyano, C₁-C₆ alkyl, C₁-C₆ alkoxy or trifluoromethyl;
- R₁ is hydrogen or C₁-C₆ alkyl or C₃-C₇ cycloalkyl;
- R₂ and R₃ are independently selected from hydrogen; C₁-C₄ alkyl, optionally substituted by hydroxy or phenyl, phenyl, the phenyl rings being optionally substituted by one or two substituents independently selected from C₁-C₆ alkyl, halogen, hydroxy, C₁-C₆ alkoxy or trifluoromethyl; or R₂ and R₃, taken with the carbon atom which they are linked to, form a C₃-C₆ cycloalkyl ring;
- R₄, R₅ are, independently, hydrogen, C₁-C₆ alkyl or C₃-C₇ cycloalkyl; or R₄ and R₅, taken together with the nitrogen atom they are linked to, form a 5-7 atom saturated heterocyclic ring;
- X is CH₂, O, S;
- Y, Z are hydrogen or taken together form a 5-7 saturated or unsaturated carbocycle or a heterocycle;

or isomers, mixtures, and pharmaceutically acceptable salts thereof for the

preparation of a medicament for treating lower urinary tract disorders.

2. The use according to claim 1, wherein the compound is selected from:

2-[(3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide;

2-[(3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-

5 propanamide;

2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
propanamide;

2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-
methyl-propanamide;

10 2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
propanamide;

2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-
methyl-propanamide;

2-[(3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide;

15 2-[(3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-
propanamide;

2-{3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
propanamide;

2-{3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-

20 N-methyl-propanamide;

2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
propanamide;

2-{3-[2-(3-Chloro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
propanamide;

25 2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
N-methyl-propanamide;

2-[(3-Phenethyl-2,3-dihydro-benzopyran-6-ylmethyl)-amino]-propanamide;

2-[(4-Phenethyl-2,3-dihydro-benzoxepin-7-ylmethyl)-amino]-propanamide;

- 2-[(3-Benzyl-2,3-dihydro-benzothiophen-5-ylmethyl)-amino]-propanamide;
2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-
propanamide;
2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-
5 propanamide;
2-[(3-Phenethyl-2,3-dihydro-benzothiophen-5-ylmethyl)-amino]-propanamide;
2-{3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-
amino)-propanamide;
2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-
10 amino)-propanamide;
2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-
amino)-N-methyl-propanamide.
3. The use according to claim 1, wherein the compound is selected from:
- 2-(4-Phenethyl-benzylamino)-propanamide;
15 2-(4-Benzyloxybenzylamino)-propanamide;
2-(3-Benzyloxybenzylamino)-propanamide;
2-(4-Benzylthiobenzylamino)-propanamide;
2-(4-Benzyloxy-benzylamino)-3-N,N-dimethyl-butanamide;
2-[4-(2-Methoxybenzyloxy)-benzylamino]-propanamide;
20 2-[4-(2-Fluorobenzyloxy)-benzylamino]-propanamide;
2-[3-(2-Fluorobenzyloxy)-benzylamino]-propanamide;
2-[4-(2-Fluorobenzyloxy)-benzylamino]-propanamide;
2-[4-(2-Fluorobenzyloxy)-benzylamino]-2-methyl-propanamide;
2-[4-(2-Fluorobenzyloxy)-benzylamino]-N-methyl-propanamide;
25 2-[3-(3-Fluorobenzyloxy)-benzylamino]-propanamide;
2-[4-(3-Fluorobenzyloxy)-benzylamino]-propanamide;
2-[4-(3-Methoxybenzyloxy)-benzylamino]-propanamide;
2-[4-(3-Cyanobenzyloxy)-benzylamino]-propanamide;

- 2-[4-(3-Fluorobenzyloxy)-benzylamino]-propanamide;
2-[4-(3-Fluorobenzyloxy)-benzylamino]-2-methyl-propanamide;
2-[4-(3-Fluorobenzyloxy)-benzylamino]-N-methyl-propanamide;
2-[4-(4-Fluorobenzyloxy)-benzylamino]-propanamide;
5 2-[4-(3-Fluorobenzyloxy)-benzylamino]-2-methyl-propanamide;
2-[4-(2-Chlorobenzyloxy)-benzylamino]-propanamide;
2-[4-(3-Chlorobenzyloxy)-benzylamino]-propanamide;
2-(4-Benzyloxybenzylamino)-3-hydroxy-propanamide;
2-[4-(2-Fluorobenzyloxy)-benzylamino]-3-hydroxy-propanamide;
10 2-[4-(3-Fluorobenzyloxy)-benzylamino]-3-hydroxy-propanamide;
2-(4-Benzyloxybenzylamino)-3-hydroxy-N-methyl-propanamide;
2-[4-(2-Fluorobenzyloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide;
2-[4-(3-Fluorobenzyloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide;
2-[4-(2-Chlorobenzyloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide;
15 2-[4-(3-Cyanobenzyloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide;
2-[4-(3-Cyanobenzyloxy)-benzylamino]-2-methyl-3-hydroxy-N-methyl-
propanamide;
2-[4-(3-Chlorobenzyloxy)-phenylethylamino]-propanamide;
2-{4-[2-(3-Fluorophenyl)-ethyloxy]benzylamino}-propanamide;
20 2-{4-[2-(3-Fluorophenyl)-ethyl]benzylamino}-propanamide;
2-[N-(4-Benzyloxybenzyl)-N-methylamino]-propanamide;
2-{4-[(3-Chlorobenzyloxy)-phenylethyl]-amino}-propanamide;
2-[4-Benzylthiobenzylamino]-propanamide;
2-[4-(2-Fluorobenzylthio)-benzylamino]-propanamide;
25 2-[4-(3-Fluorobenzylthio)-benzylamino]-propanamide;
2-[4-(3-Phenylpropyloxy)-benzylamino]-propanamide;
2-[4-(4-Phenylbutyloxy)-benzylamino]-propanamide;
2-[4-(5-Phenylpentyloxy)-benzylamino]-propanamide;

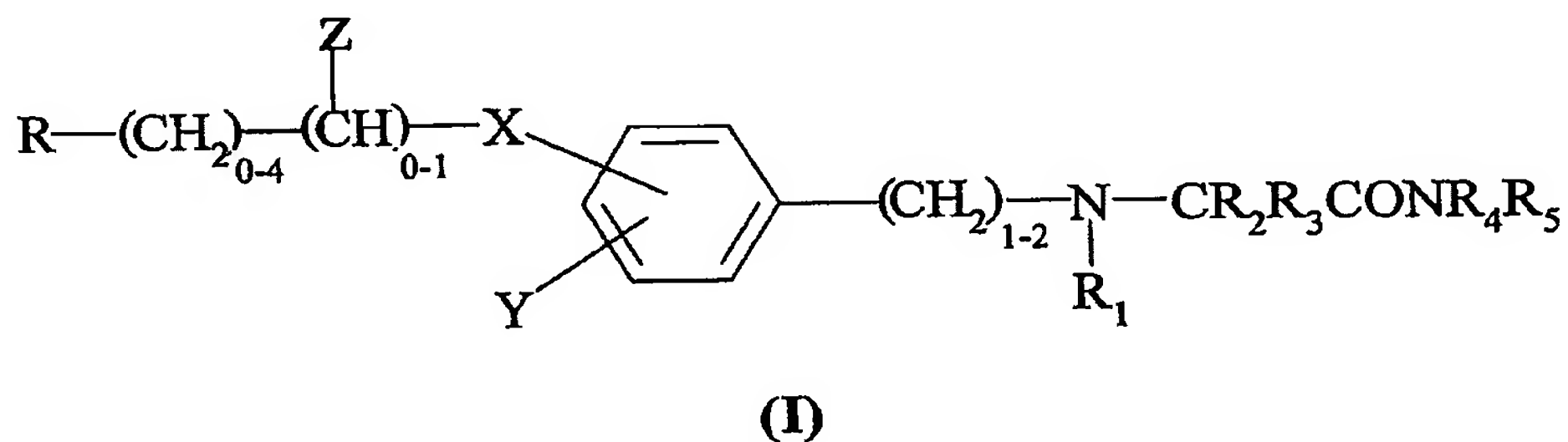
- 2-(4-Benzyloxybenzylamino)-3-phenyl-N-methyl-propanamide;
 2-(4-Benzyloxybenzylamino)-3-hydroxy-N-methyl-butanamide;
 2-(4-Benzyloxybenzylamino)-3-methyl-N-methyl-butanamide;
 2-(4-Benzyloxybenzylamino)-2-phenyl-acetamide;
 5 2-[4-(2-Fluorobenzyloxy)-benzylamino]-2-phenyl-acetamide;
 2-[4-(3-Fluorobenzyloxy)-benzylamino]-2-phenyl-acetamide;
 2-[4-(2-Fluorobenzyloxy)-benzyl-N-methylamino]-2-phenyl-acetamide;
 2-[4-(3-Fluorobenzyloxy)-benzyl-N-methylamino]-2-phenyl-acetamide;
 2-[4-(3-Chlorobenzyloxy)-benzylamino]-2-phenyl-acetamide;
 10 2-[4-(2-Fluorobenzyloxy)-benzylamino]-2-(2-fluorophenyl)-acetamide;
 2-[4-(2-Fluorobenzyloxy)-benzylamino]-2-(3-fluorophenyl)-acetamide;
 2-[4-(3-Fluorobenzyloxy)-benzylamino]-2-(2-fluorophenyl)-acetamide;
 2-[4-(3-Fluorobenzyloxy)-benzylamino]-2-(3-fluorophenyl)-acetamide;
 2-[4-(3-Chlorobenzyloxy)-benzylamino]-2-(3-fluorophenyl)-acetamide;
 15 2-(4-(2-Thienyloxy)-benzylamino)-propanamide.

4. The use of claim 1, wherein said lower urinary tract disorders are overactive bladder (OAB), prostatitis and prostatic hyperplasia, interstitial cystitis, benign prostatic hyperplasia and urinary incontinence as the consequence of the above pathologies.

- 20 5. The use of any one of claims 1 to 4, wherein the α -aminoamides are (S)-(+)-2-[3-(2-fluorobenzyloxy)-benzylamino]-propanamide; (S)-(+)-2-[4-(2-fluorobenzyloxy)-benzylamino]-propanamide, (S)-(+)-2-[4-(2-fluorobenzyloxy)-benzylamino]-N-methyl-propanamide, (S)-(+)-2-[3-(3-fluorobenzyloxy)-benzylamino]-propanamide, (S)-(+)-2-[4-(3-fluorobenzyloxy)-benzylamino]-propanamide,
 25 propanamide, (R)-2-(4-Benzyloxybenzylamino)-3-phenyl-N-methyl-propanamide; (2R,3S)-2-(4-Benzyloxybenzylamino)-3-hydroxy-N-methyl-butanamide; (S)-(+)-2-[4-(3-fluorobenzyloxy)-benzylamino]-N-methyl-propanamide, (S)-(+)-2-(4-phenethyl-benzylamino)-propanamide, (R)-(-)-2-(4-

benzyloxy-benzylamino)-3-N,N-dimethyl-butanamide, (S)-(+)-2-(4-benzylthiobenzylamino)-propanamide, and 2-[(3-phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide and (2R/3'S,R)-2-[(3-phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide, 2-{3-[2-(2-fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-propanamide, 2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-propanamide, (2R/3'S,R)-2-{3-[2-(2-fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-propanamide, (2R/3'S,R)-2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-propanamide.

6. An α -aminoamide compound of formula (I),



15 wherein:

- R is a furyl, thienyl, or pyridyl ring or a phenyl ring, optionally substituted by one or two substituents independently selected from halogen, hydroxy, cyano, C₁-C₆ alkyl, C₁-C₆ alkoxy or trifluoromethyl;
- R₁ is hydrogen or C₁-C₆ alkyl or C₃-C₇ cycloalkyl;
- R₂ and R₃ are independently selected from hydrogen; C₁-C₄ alkyl, optionally substituted by hydroxy or phenyl, phenyl, the phenyl rings being optionally substituted by one or two substituents independently selected from C₁-C₆ alkyl, halogen, hydroxy, C₁-C₆ alkoxy or trifluoromethyl; or R₂ and R₃, taken with the carbon atom which they are linked to, form a C₃-C₆ cycloalkyl ring;

- R_4 , R_5 are, independently, hydrogen, C_1 - C_6 alkyl or C_3 - C_7 cycloalkyl; or R_4 and R_5 , taken together with the nitrogen atom they are linked to, form a 5-7 atom saturated heterocyclic ring;
- X is CH_2 , O, S;
- 5 • Y, Z taken together form a dihydrobenzofuran or dihydrobenzothiophen or a dihydrobenzo(thio)pyran or a tetrahydrobenz(thio)oxepin heterocycle, isomers, mixtures, and pharmaceutically acceptable salts thereof.

7. A compound according to claim 6, selected from:

- 10 2-[(3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide;
2-[(3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-
propanamide;
2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
propanamide;
- 15 2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-
methyl-propanamide;
2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
propanamide;
2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-
20 methyl-propanamide;
2-[(3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide;
2-[(3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-
propanamide;
2-{3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
25 propanamide;
2-{3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
N-methyl-propanamide;
2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-

- propanamide;
2-{3-[2-(3-Chloro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
propanamide;
2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-
5 N-methyl-propanamide;
2-[(3-Phenethyl-2,3-dihydro-benzopyran-6-ylmethyl)-amino]-propanamide;
2-[(4-Phenethyl-2,3-dihydro-benzoxepin-7-ylmethyl)-amino]-propanamide;
2-[(3-Benzyl-2,3-dihydro-benzothiophen-5-ylmethyl)-amino]-propanamide;
2-{3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-
10 propanamide;
2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-
propanamide;
2-[(3-Phenethyl-2,3-dihydro-benzothiophen-5-ylmethyl)-amino]-propanamide;
2-{3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-
15 amino)-propanamide;
2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-
amino)-propanamide;
2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-
amino)-N-methyl-propanamide;
20 or isomers, mixtures, and pharmaceutically acceptable salts thereof.

8. A pharmaceutical composition comprising a pharmaceutically acceptable excipient and, as an active agent, an effective amount of a compound of claims 6 or 7.